

REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed September 9, 2004. In the Office Action, the Examiner notes that claims 1-30 are pending, of which claims 1-30 are rejected and claims 1, 12, 25 and 30 are objected to. By this response, the Applicants have amended claims 1, 12, 25, 27, and 30, and claims 2-11, 13-24, 26 and 28-29 continue unamended.

In view of both the amendments presented above and the following discussion, the Applicants submit that none of the claims now pending in the application are non-enabling, anticipated or obvious under the respective provisions of 35 U.S.C. §112, §102 or §103. Thus, the Applicants believe that all of these claims are now in allowable form.

It is to be understood that the Applicants, by amending the claims, do not acquiesce to the Examiner's characterizations of the art of record or to the Applicants' subject matter recited in the pending claims. Further, the Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

THE DRAWINGS

The Examiner has objected to the drawings stating that "Fig. 1 element 148 labeled as --AMP Server-- should be labeled as --HTTP Server-- in order to be consistent with the specification." Applicants respectively traverse the rejection.

The Applicants element 148 was properly labeled HTTP Server as originally filed, albeit in a hastily written manner that looks similar to "AMP Server." In response, the Applicants have submitted the formal drawings, which clearly define element 148 of FIG. 1 as being an HTTP Server. Therefore, Applicants respectfully request that the Examiner's objection be withdrawn.

Further, Applicants have amended FIG. 1 to conform to the specification. In particular, the Applicants have added remote head end 164, manager 162, and backbone streaming network 166. Such changes are supported by the specification beginning at page 12, line 28 to page 13, line 18. The Applicants submit that such changes to the drawing do not add any new subject matter.

THE SPECIFICATION

The Applicants have amended the specification to provide minor grammatical changes, amend reference numbers to conform to the drawings, and update serial numbers of patent applications incorporated by reference. Such amendments to the specification do not add any new subject matter to the application.

CLAIM OBJECTIONS

The Examiner has objected to claims 1, 12, 25, and 30 for various formalities. In response, the Applicants have amended the claims as suggested by the Examiner, and therefore the Applicants respectfully request that the Examiner's objections be withdrawn.

REJECTIONS

35 U.S.C. §112

Claims 12 and 25

The Examiner has rejected claims 12 and 25 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. In particular, the Examiner contends that there is insufficient antecedent basis for the limitations "said second subscriber terminal" in claim 12 and "said streaming" and "said second subscriber terminal" in claim 25. The Applicants respectfully traverse the Examiner's rejection.

The Applicants have amended claims 12 and 25 to change the features "said streaming" and "said second subscriber terminal" to "a streaming" and "a second subscriber terminal." The Applicants submit that such changes do not add any new subject matter.

As such, the Applicants submit that claims 12 and 25 have proper antecedent basis for all the limitations therein and fully comply with the requirements of 35 U.S.C. §112, and are patentable thereunder. Therefore, the Applicants respectfully request that the rejections be withdrawn.

35 U.S.C. §103

Claims 1-7, 9-20 and 22-29

The Examiner has rejected claims 1-7, 9-20 and 22-29 under 35 U.S.C. §103(a) as being unpatentable over Klemets et al. (US230010013068A1, hereinafter "Klemets") in view of Towell et al. (US006647411B2, hereinafter "Towell") and in further view of the Examiners' Official Notice. The Applicants respectfully traverse the rejection.

The Applicants' independent claims 1, 14 and 27 recite:

1. "Method for preprocessing content for a stream caching server in an interactive information distribution system, said method comprising:
retrieving content in a first subscriber terminal;
transcoding said retrieved content into a plurality of MPEG packets;
uploading said transcoded content to a http server coupled to an access network;
encapsulating said transcoded content in accordance to an Internet Protocol (IP) format supported by said stream caching server; and
transmitting said encapsulated content for storage in said stream caching server." (emphasis added).
14. "A system for preprocessing content for a stream caching server in an interactive information distribution system, said system comprising:
a first subscriber terminal for receiving content, transcoding said content into a plurality of MPEG packets, and uploading said transcoded content to an access network; and
a digital link for encapsulating said transcoded content in accordance to an Internet Protocol (IP) supported by said stream caching server, and transmitting said encapsulated content to said stream caching server." (emphasis added).
27. "A method for use in a client server system, comprising:
loading, into a client, content local to said client;
loading into said client as necessary, a transcoding application from a server of said server system, said transcoding application operative to transcode or encode content into a desired player format;
transcoding said loaded content into said desired player format;

encapsulating said transcoded content into a desired transport format; and
uploading said encapsulated content to said server system."

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The Klemets and Towell references alone or in combination fail to teach or suggest the Applicants' invention as a whole.

In particular, the Klemets reference discloses a producer 215a includes a capture module 317a and an author module 318a and a hard disk drive for capturing and storing an uncompressed or precompressed video stream. Sources for generating video streams include a video camera, a video cassette recorder, or a previously digitized video file. The capture module captures a live video/audio stream illustratively from the video tower or from the previously stored video file. The capture module compressed the digitized video stream using a suitable compression technique. When author module 318 has completed building an annotation stream, the annotation stream is given a file name and loaded into a convenient server, e.g., stream server 220, for subsequent retrieval by client computer 240 (see Klemets, page 3, paragraphs 0044-0046, page 4, paragraph 0055, Abstract, and FIGS. 2-4A).

The Examiner's Official Notice provides that "it is well known to compress data in a plurality of MPEG packets or transcode content into a plurality of MPEG packets." However, the combination of Klemets and the Examiner's Official Notice fails to teach or suggest "uploading said transcoded content to a http server coupled to an access network" and "transmitting said encapsulated content for storage in said stream caching server."

Furthermore, the Towell reference fails to bridge the substantial gap between the Klemets reference and Applicants' invention. In particular, the Towell reference discloses a content provider that is attached to caching devices by conventional

network connections. Data concerning the television viewing habits of a user may be maintained within processing device 115. The information may be gathered by any well known technique for gathering and storing the user data. For example, the data may indicate that the user views a particular television show or prefers to view particular types of movies. Viewing data is transferred to the content provider 105 where the content provider uses the viewing data to return information to the caching device. For example, if a user's viewing data indicates a preference for action movies, the content provider may return five action movies from the content depot for download. The caching device 110 transfers the chosen movie to processing device 115 for viewing by a user (see Towell, column 3, line 37 to column 4, line 18, and FIG. 1A).

Even if the three references could somehow be operably combined, the combination would merely disclose uploading the transcoded content to a content provider, and streaming the uploaded content to another subscriber station. Nowhere in the combined references is there any teaching or suggestion of "uploading said transcoded content to a http server coupled to an access network," and "transmitting the encapsulated content for storage in said stream caching server." That is, the Applicants' invention first uploads the transcoded content to an http server, encapsulates the transcoded content in accordance with an internet protocol format supported by the stream caching server, and then transmits the encapsulated content to the caching server for storage. The steps of transcoding the received content, uploading the transcoded content to an http server, encapsulating the transcoded content in accordance with an IP format supported by a stream caching server, and transmitting the encapsulated content to the stream caching server are not taught or suggested by the cited references. Therefore, the combination of Klemets, the Examiner's Official Notice, and Towell fail to teach or suggest the Applicants' invention as a whole.

As such, the Applicants submit that independent claims 1, 14, and 27 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Furthermore, claims 2-7, 9-13, 15-20, 22-26 and 28-29 depend directly or indirectly from independent claims 1 and 14 and 27 and recite additional features thereof. As such and for at least the same reasons as discussed above, the Applicants

submit that these dependent claims are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, the Applicants respectfully submit that the Examiner's rejection of claims 1-7, 9-20 and 22-29 should be withdrawn.

Claims 8, 21 and 30

The Examiner has rejected claims 8, 21 and 30 under 35 U.S.C. §103(a) as being unpatentable over Klemets in view of Towell as applied to claims 1-7, 9-20 and 22-29 above, and further in view of Mimura et al. (US006557031B1, hereinafter "Mimura"). The Applicants respectfully traverse the rejection.

As discussed above, the Klemets and Towell references and the Examiner's Official Notice alone or in combination fail to teach or suggest the Applicants' invention as a whole, as disclosed and claimed in the Applicants independent claims 1, 14, and 27. Furthermore, the Mimura reference fails to bridge the substantial gap between the Klemets and Towell references and the Examiner's Official Notice, and the Applicants' invention.

In particular, the Mimura reference discloses

"For the standard of an MPEG video transmission format, Request for Comment No. 2038: "RTP Payload Format for MPEG1/MPEG2 Video" (hereinafter abbreviated to RFC 2038) has standardized a transmission method and a packet encapsulation system. It is prescribed by RFC 2038 that the transmission should be made with ES, TS or PS of MPEG utilized as the format of a packet to be transmitted and that in order to prevent the degradation of resolution from being caused by transmission delay, the transmission should be made in accordance with "RTP: A Transport Protocol for Real-Time Applications" (hereinafter abbreviated to RTP) specified by RFC 1889. It is prescribed that an RTP packet should be stored in a packet based on a user datagram protocol (hereinafter abbreviated to UDP) and this UDP packet should be transmitted by use of the Internet Protocol packet (hereinafter abbreviated to IP packet). With the prior art described above, it is possible to transmit MPEG video data in such a manner that MPEG-TS packets are used in the CATV network while IP packets are used in the Internet." (See Mimura, Column 2, lines 28-54).

Even if the four references could somehow be operably combined, the combination would merely disclose transcoding content stored at a production station, encapsulating the MPEG packets within an RTP packet of an IP packet, and sending such IP packets on the transcoded content to a stream server. Nowhere is there any teaching or suggestion in the combined references of "transcoding said retrieved content," "uploading the transcoded content to an http server," "encapsulating the transcoded content in accordance with an IP format supported by said stream caching server," and "transmitting the encapsulated content for storage in said stream caching server." Therefore, the combined references fail to teach or suggest the Applicants' invention as a whole.

Therefore, for at least the reasons discussed above with respect to the Applicants' independent claims 1, 14 and 27, the Applicants submit that claims 8, 21 and 30 which depend directly or indirectly from Applicants' independent claims 1, 14 and 27 are patentable under 35 U.S.C. §103 over Klemets in view of Towell and further in view of Mimura. Therefore, the Applicants respectfully request that the Examiner's rejection be withdrawn.

THE SECONDARY REFERENCES

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the Office Action. Therefore, the Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this Office Action.


CONCLUSION

Thus, the Applicants submit that all of the claims presently in the application, are enabling, not anticipated, non-obvious and patentable under the respective provisions of 35 U.S.C. §112, §102 and §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. or Steven M. Hertzberg at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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ANNOTATED SHEET

